

Appl. No. 10/777,439
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IN THE CLAIMS

JUL 25 2006

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A heat storing element for use in a heat storage apparatus, said heat storing element comprising:

a pair of inner and outer partition wall sections opposed in substantial parallel relation to each other with a predetermined distance therebetween, said inner and outer partition wall sections each having a substantial vortex shape;

an inner connection section interconnecting respective ~~one~~ first ends of said inner and outer partition wall sections, said inner connection section having a projected portion and a recessed portion; and

an outer connection section interconnecting respective other ends of said inner and outer partition wall sections, said outer connection section having a projected and a recessed portion,

said heat storing element being produced by extrusion molding.

2. (original) A heat storing element as claimed in claim 1 which further comprises a plurality of ribs formed between opposed inner surfaces of said inner and outer partition wall sections, and wherein each of said ribs has a recess formed across a thickness thereof to allow passage therethrough of fluid.

3. (currently amended) A method for manufacturing a heat storage apparatus, comprising:

(a) a step of providing a plurality of heat storing elements as recited in claim 1;

(b) a step of fitting the recessed or projected portion of the inner connection

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section of a first one of a given pair of said heat storing elements with the projected or recessed portion of a second one of the pair of said heat storing elements;

(c) a step of bonding together the portions, fitted by said step of (b), of the first and second heat storing elements in close contact with each other;

(d) a step of fitting the recessed or projected portion of the outer connection section of the first heat storing element with the projected or recessed portion of the outer connection section of the second heat storing element;

(e) a step of bonding together the portions, fitted by said step of (d), of the first and second heat storing elements in close contact with each other; and

(f) a step of repeating the steps of (a) – (e) until said plurality of heat storing elements are all joined together, to thereby provide a heat storage apparatus which has one or more heat-storing-material accommodating chambers defined in each of said heat storing elements and one or more fluid passageways for passage therein of heat exchanging fluid, each of said fluid passageways being defined by a gap between the inner partition wall of one of said heat storing elements and the outer partition wall of another of said heat storing elements that adjoins the one heat storing element.

4. (currently amended) A method as claimed in claim 3 wherein the steps of (c) and (e) bond the fitted portions by one of brazing or bolt-and-nut fastening.